

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

(See Issuing Division below)

PERMIT*



The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit.

Permit No. 1217-91-0012.6 (FWIP) 1217-91-0012.7 (FWTW)	Application No.
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Issuance Date MAR 04 2002	Effective Date MAR 04 2002	Expiration Date MAR 04 2007
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Name and Address of Applicant New Jersey Department of Transportation 1035 Parkway Ave, P.O. Box 600 Trenton, NJ 08625	Name and Address of Owner	Name and Address of Operator
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Location of Activity/Facility (Street Address) Route 18 Extension Piscataway Township Middlesex County, New Jersey	Issuing Division Land Use Regulation Program	Statute(s) NJSA 58:10A NJSA 13:9B
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Lots: N/A Block: N/A

Type of Permit: Individual Freshwater Wetlands Permit Freshwater Wetlands Transition Area Waiver	Maximum Approved Capacity, if applicable
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This Individual Freshwater Wetlands permit grants permission to permanently disturb 1.13 of an acre of scrub/shrub, 2.73 of an acre of forested and 0.598 of an acre of emergent freshwater wetlands and the temporary disturbance of 0.639 of an acre of freshwater wetlands and State open waters for the proposed Route 18 Extension-Section 2A located in the Township of Piscataway, Middlesex County. The project will extend Route 18 from the John A. Lynch, Sr. Memorial Bridge to Hoes Lane for a distance of 1.7 miles. The highway will consist of 4-lanes, median divided with three major interchanges and a multi-use pedestrian pathway. This approval also includes a Transition Area Waiver-Linear Development. The Department has also determined that the proposed activities within the reduced transition area will not have a substantial impact on the adjacent wetlands and therefore approves the proposed modified transition area boundary line as shown on the below listed plan(s).

These permits are authorized under and in compliance with the Freshwater Wetlands Protection Act Rules. The plans hereby approved consist of fifteen (15) sheets as prepared by Gannett Fleming, Inc., entitled, "NEW JERSEY DEPARTMENT OF TRANSPORTATION, ENVIRONMENTAL PERMITTING PLANS, ROUTE 18 EXTENSION SECTION 2A, CONTRACT NO. 043960223," sheets WP-2 through WP-16, all dated December 18, 2001, sheets WP-2 through WP-7, WP-9 through WP-11, WP-13 and WP-15 last revised December 17, 2001, and sheets WP-8, WP-12, WP-14, and WP-16 unrevised.

Prepared By:

Kimberly Kessler

Kimberly Kessler

(See page 7 for Directors signature.)

Revised Date	Approved by the Department of Environmental Protection Name (Print or Type) _____ Title _____ Signature _____ Date _____
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*The word permit means "approval, certification, registration, etc."
Two)

(General Conditions are on Page

This permit is subject to the following conditions:

PHYSICAL CONDITIONS:

1. This permit is revocable, or subject to modification or change at any time, pursuant to the applicable regulations, when in the judgement of the Department of Environmental Protection of the State of New Jersey such revocation, modification or change shall be necessary.
2. The issuance of the permit shall not be deemed to affect in any way action by the Department of Environmental Protection of the State of New Jersey on any future application.
3. The works, facilities, and/or activities shown by plans and/or other engineering data, which are this day approved, subject to the conditions herewith established, shall be constructed and/or executed in conformity with such plans and/or engineering data and the said conditions.
4. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey.
5. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of ownership.
6. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
7. A copy of this permit shall be kept at the work site, and shall be exhibited upon request of any person.
8. In cases of conflict, the conditions of this permit shall supersede the plans and/or engineering data.
9. Any construction, grading, removal of vegetation, or other activity at this site that affects a regulated area, other than specifically approved by this permits or as detailed by the approved drawings, shall require additional approvals from the Department. The commencement of such regulated activities without the appropriate approvals shall be in violation of State Law.

METHOD OF CONSTRUCTION:

- a. All activities approved by this permit shall be performed under the supervision and direction of a Professional Engineer licensed in the State of New Jersey, and shall be undertaken using the best management practices available. Furthermore, the site shall be subject to inspection at any time by representatives of the Department to ensure the continuous application of the provisions of this permit.

- b. During the course of construction, neither the applicant nor its agents shall cause or permit any unreasonable interference with the free flow of the stream by placing or dumping any materials, equipment, debris or structures within or adjacent to the stream corridor. Upon completion or abandonment of the work, the applicant and/or its agents shall remove and dispose of in a lawful manner all excess materials, equipment and debris from the stream corridor and adjacent lands.
- c. All activities authorized by this permit shall be stabilized in accordance with Standards for Soil Erosion and Sediment Control in New Jersey (obtainable from local Soil Conservation District Offices), or equal engineering specifications, to prevent eroded soil and sediment from entering adjacent waterways and wetlands at any time during and subsequent to construction. The Department reserves the right to order the suspension of any activity if unacceptable levels of erosion or turbidity result from the same. Furthermore, the applicant shall maintain the stream corridor as shown on the approved drawing/s for either such time as is required for the channel and/or banks to become reasonably stabilized, or for one year after completion of the project (as evidenced by a Certificate of Completion), whichever period of time is longer.

RESPONSIBILITY OF APPLICANT:

- a. The granting of this permit does not in any way relieve the applicant and/or its agents from the responsibility for damages caused by any construction or activities hereby approved, nor does the Department accept responsibility for any structural designs.
- b. Within ten (10) days of the receipt of this permit by the applicant, this permit shall be recorded in its entirety in the office of the County Clerk or the Registrar of Deeds and Mortgages for each county where this permit is located. Verified notice of this action shall be forwarded to the Department immediately thereafter.

SPECIAL CONDITIONS:

1. Trees, shrubs, grasses, and other vegetation within 25 feet from the top of all stream banks on site shall not be disturbed for any reason, except where approved by the Department. This condition applies to all streams and waterways on site, regardless of the contributory drainage area.
2. Upon completion of the project, all temporarily disturbed upland areas as well as temporarily disturbed wetland areas, must be restored to their original condition using native soils and indigenous vegetation. Said restoration is to be accomplished under the recommendation and discretion of the local soil conservation district having jurisdiction over the project.
3. The permittee is responsible for obtaining all necessary approvals from any applicable agencies, including but not necessarily limited to Soil Conservation District Office.
4. Immediately following final construction the Route 18 extension, notify the Land Use Regulation Program, in writing, that construction is complete. In addition to the notice, submit photos with a photo location map of the completed project.
5. In order to protect the general fishery resources within Metlars Brook and its tributaries, any proposed grading or construction activities within the banks of this or any other stream on site are prohibited between April 1 to June 30 of each year. The placement of the pipe culvert(s) must be at or just slightly below existing stream bottom inverts as found immediately upstream and downstream of the crossings. Any aprons must have a concave bottom to match the pipes and rip-rap must be placed, shaped and/or imbedded into the channel in accordance with the culvert pipe(s) placement to allow for low flow fish passage. The Department reserves the right to suspend all regulated activities on site should it be determined that the applicant has not taken proper precautions to ensure continuous compliance with these conditions.

6. All temporary disturbances must be discontinued within six months after they are begun and all temporary disturbed areas must be restored to their original condition.

CONDITIONS FOR A TRANSITION AREA WAIVER AVERAGING PLAN:

1. The transition area shall not be reduced to less than 15 feet in width as shown other referenced plan.

PROJECT SPECIFIC MITIGATION CONDITIONS:

The following special conditions must be met for the activity to be authorized under these permits:

1. Mitigate for the loss of 1.13 of an acre of scrub/shrub, 2.73 of an acre of forested and 0.598 of an acre of emergent freshwater wetlands through either an on-site or off-site creation, restoration or enhancement project as detailed in condition number 3 below and/or through the purchase of mitigation credits as detailed in condition 2 below.
 - a.) Any disturbances to wetlands that last for more than 6 months will be considered permanent and shall be compensated for through mitigation as detailed at condition number 3 below.
2. If available, purchase credits from the Wycoff Mills Wetland Mitigation Bank as detailed below.
 - a.) The permittee must submit proof of the purchase of mitigation credits to Virginia Kop'Kash, from the Land Use Regulation Program, before the authorized construction may begin. To purchase credits from the Wycoff Mills Mitigation Bank the permittee must contact Eric Gleason at (301) 986-9800.
3. For an on-site or off-site individual mitigation project the permittee must submit a mitigation proposal to the Land Use Regulation Program, to create, enhance or restore an area of freshwater wetlands of equal ecological value to those, which will be lost by the authorized activity for review and approval. Attached to this permit is a list of the necessary information that must be included in that on-site or off-site mitigation proposal. If the permittee is proposing to construct a wetland creation or restoration project, two acres of creation or restoration must be performed for each acre disturbed and the mitigation area must, in addition to this, include a 50-foot transition area. The slope of the created transition area must be fairly flat and therefore have a slope no greater than 10:1. If the permittee is proposing to construct a wetland enhancement project, the ratio of wetlands enhanced to wetlands disturbed shall be sufficient to replace loss of ecological value from the permitted project and shall be approved by the Program. The following conditions and information must be adhered to when performing mitigation off-site.
 - a.) Submit for review and approval a conceptual plan showing the location and proposed hydrology of the mitigation site.
 - b.) Once the Program has approved the conceptual plan of the mitigation project the permittee must submit a final design of the mitigation project and include all the items listed on the attached on-site/off-site mitigation proposal checklist.
 - c.) The mitigation project must be conducted prior to or concurrent with the construction of the approved project.
 - d.) The permittee shall complete and sign the Department approved conservation restriction for the mitigation site (copy attached). The restriction shall be included on the deed, and recorded in the office of the County Clerk (the Registrar of Deeds and Mortgages in some counties), in the county wherein the lands of the mitigation project are located, within 10 days of approval of the wetland mitigation proposal.

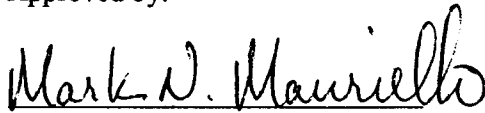
- e.) The permittee shall notify the Land Use Regulation Program, in writing, at least 14 days in advance of the start of construction of the wetland mitigation project for an on-site pre-construction meeting between the permittee, the contractor, the consultant and the Program.
- f.) The mitigation designer must be present during critical stages of construction of the mitigation project this includes but is not limited to herbicide applications, sub-grade inspection, final grade inspection, and planting inspection.
- g.) Immediately following final grading of the site, a disc must be run over the site to eliminate compaction. Mitigation designer must be present to oversee this phase of the project and confirm with the Department this activity has occurred prior to planting of the site.
- h.) Immediately following the final grading of the mitigation site and prior to planting, the permittee shall notify the Program for a post-grading construction meeting between the permittee, contractor, consultant and the Program.
- i.) Immediately following final grading and planting of the wetland mitigation project, the permittee shall notify the Land Use Regulation Program, in writing that the construction of the mitigation project has been completed in accordance with the approved plan. In addition to the notice, the permittee shall submit as built plans of the site and photos with a photo location map of the completed project.
- j.) The permittee shall post the mitigation area with several permanent signs, which identify the site as a wetland mitigation project and that mowing, cutting, dumping and draining of the property is prohibited. The sign must also state the name of the engineering/environmental firm that designed and constructed the mitigation site with a phone number. In addition, the permittee shall visibly mark/staked (oak stakes) the extent of the wetland mitigation area and ensure the stakes remain that way for the entire monitoring period with the location of those stakes shown on the as built plan.
- k.) If the Program determines that the mitigation project is not constructed in conformance with the approved plan, the permittee will be notified in writing and will have 60 days to submit a proposal to indicate how the project will be corrected.
- l.) The permittee shall monitor the wetland mitigation project for 5 full growing seasons if it is a proposed forested wetland and for 3 full growing seasons for a scrub/shrub or emergent wetland after the mitigation project has been constructed. The permittee shall submit monitoring reports to the Land Use Regulation Program no later than November 15th of each monitoring year (All monitoring report must include the standard items identified in the attachment and the information requested below).
- m.) Throughout the monitoring period, the permittee must eliminate either through hand-pulling, application of a pesticide or other Department approved method any occurrence of an invasive/noxious species on the mitigation site.
- n.) All monitoring report will include all the following information (see attached monitoring report checklist):
 - i. The monitoring reports submitted prior to the final one must include documentation that it is anticipated, based on field data, that the goals of the wetland mitigation project including the transition area, as stated in the approved wetland mitigation proposal and the permit will be satisfied. If the permittee is finding problems with the mitigation project and does not anticipate the site will be a full success then recommendations on how to rectify the problems must be included in the report with a time frame in which they will be completed. The final monitoring report must include documentation to demonstrate that the goals of the wetland mitigation project

including the required transition area, as stated in the approved wetland mitigation proposal and the permit, has been satisfied. Documentation for this report will also include a field wetland delineation of the wetland mitigation project based on techniques as specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989);

- ii. The monitoring reports submitted prior to the final one must include documentation that the site is progressing towards the 85 percent survival and percent areal coverage of mitigation plantings or target hydrophytes which are species native to the area and similar to ones identified on the mitigation planting plan. If the permittee is finding problems with the mitigation project and does not anticipate the site will or has achieved the 85 percent survival and 85 percent areal coverage criteria then recommendations on how to rectify the problems must be included in the report with a time frame in which they will be completed. The final monitoring report must include documentation the site has an 85 percent survival and 85 percent areal coverage of the mitigation plantings or target hydrophytes which are species native to the area and similar to ones identified on the mitigation planting plan;
 - iii. Documentation to demonstrate the site is less than 10 percent occupied by invasive or noxious species such as but not limited to *Phalaris arundinacea* (Reed canary grass), *Phragmites australis* (Common reed grass), *Pueraria lobata* (Kudzu), *Typha latifolia* (Broad-leaved cattail), *Typha angustifolia* (Narrowed leaved cattail), *Lythrum salicaria* (Purple loosestrife), *Ailanthus altissima* (Tree-of-heaven), *Berberis thunbergii* (Japanese barberry), *Berberis vulgaris* (Common barberry), *Elaeagnus angustifolia* (Russian olive), *Elaeagnus umbellata* (Autumn olive), *Ligustrum obtusifolium* (Japanese privet), *Ligustrum vulgare* (Common privet) and *Rosa multiflora* (Multiflora rose). If the site is more than 10 percent occupied by invasive or noxious species then the monitoring report must include a proposed remediation plan and a time frame in which it will be completed;
 - iv. Demonstrate through soil borings and a soil test that a minimum six inch layer of top-soil or A-Horizon was used/retained on the mitigation site and if the natural top-soil was used at least 8% organic carbon content (by weight) was incorporated into the A-horizon for sandy soil and for all other soil types 12% organic content or if manmade top soil was used it consisted of equal volumes of organic and mineral materials. If the site fails to meet this standard the monitoring report must include a proposed remediation plan and a time frame in which it will be completed. The final monitoring report must include documentation that the site contains hydric soils or there is evidence of reduction occurring in the soil; and
- p.) The monitoring reports submitted prior to the final report must include documentation that demonstrates the proposed hydrologic regime as specified in the mitigation proposal appears to be met. If the permittee is finding problems with the mitigation project and does not anticipate the proposed hydrologic regime will be or has not been met then recommendations on how to rectify the problem must be included in the report along with a time frame within which it will be completed. The final monitoring report must include documentation that demonstrates that the proposed hydrologic regime as specified in the mitigation proposal, which proves the mitigation site is a wetland has been satisfied. The documentation shall include when appropriate monitoring well data, stream gauge data, photographs and field observation notes collected throughout the monitoring period.
- q.) Once the required monitoring period has expired and the permittee has submit the final monitoring report, the Program will make the finding that the mitigation project is either a success or a failure. This mitigation project will be considered successful if the permittee demonstrates all of the following:

- i. That the goals of the wetland mitigation project including the required transition area, as stated in the approved wetland mitigation proposal and the permit, has been satisfied. The permittee must submit a field wetland delineation of the wetland mitigation project based on the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989) which shows acres of emergent/scrub shrub/forested wetlands have been created/restored/enhanced;
 - ii. The site has an 85 percent survival and 85 percent areal coverage of the mitigation plantings or target hydrophytes which are species native to the area and similar to ones identified on the mitigation planting plan;
 - iii. The site is less than 10 percent occupied by invasive or noxious species such as but not limited to *Phalaris arundinacea* (Reed canary grass), *Phragmites australis* (Common reed grass), *Pueraria montana* (Kudzu), *Typha latifolia* (Broad-leaved cattail), *Typha angustifolia* (Narrowed leaved cattail), *Lythrum salicaria* (Purple loosestrife), *Ailanthus altissima* (Tree-of-heaven), *Berberis thunbergii* (Japanese barberry), *Berberis vulgaris* (Common barberry), *Elaeagnus angustifolia* (Russian olive), *Elaeagnus umbellata* (Autumn olive), *Ligustrum obtusifolium* (Japanese privet), *Ligustrum vulgare* (Common privet) and *Rosa multiflora* (Multiflora rose);
 - iv. The site contains hydric soils or there is evidence of reduction occurring in the soil; and,
 - v. That the proposed hydrologic regime as specified in the mitigation proposal, which proves the mitigation site is a wetland has been satisfied. The documentation shall include when appropriate monitoring well data, stream gauge data, photographs and field observation notes collected throughout the monitoring period.
- r.) If the mitigation project is considered a failure, the permittee is required to submit a revised mitigation plan to rectify the wetland mitigation site. The plan shall be submitted within 60 days of receipt of the letter from the Program indicating the wetland mitigation project was a failure.

Approved by:



Mark N. Mauriello, Acting Director
Land Use Regulation Program


Date

- c. Piscataway Township Municipal Clerk
Piscataway Township Construction Official
Piscataway Township Planning Board